

# Arizona Department of Transportation

Certification of Revenue and Construction Costs

for the

Regional Transportation Plan Freeway Program January 2009

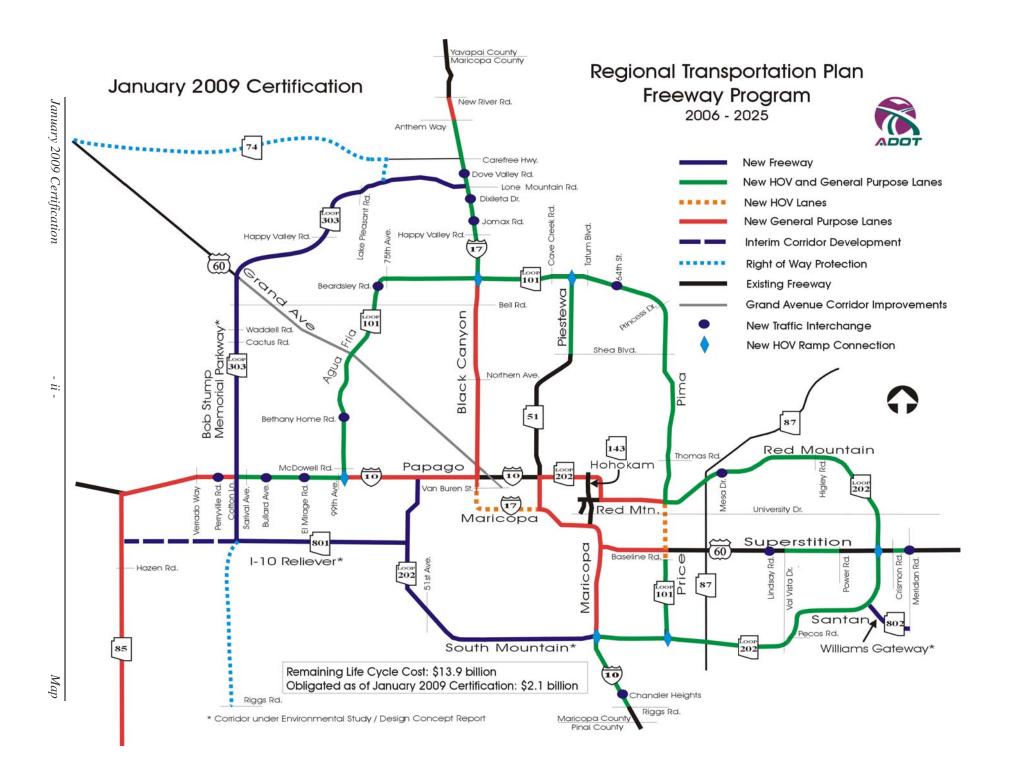


Victor M. Mendez, Director

Arizona Department of Transportation

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Introduction and History



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#### INTRODUCTION AND HISTORY

This semi-annual Regional Transportation Plan Freeway Program (RTPFP) Life Cycle Certification report is prepared in compliance with the 1991 Performance Audit of the Maricopa Association of Governments (MAG) Regional Freeway Program. The report is designed to review the progress of the RTPFP and identify the projections and changes in program revenues and costs.

The RTPFP is funded by three primary revenue sources: the extension of the Maricopa County transportation excise tax (often referred to as the half cent sales tax or Regional Area Road Funds), the Arizona Department of Transportation's (ADOT) funds dedicated to Maricopa County and federal funds.

Per ARS 42-6105.E, 56.2 percent of all sales tax collections will be distributed to freeways and state highways; 10.5 percent will be distributed to arterial street improvements; and 33.3 percent will be distributed to the public transportation fund.

The RTPFP Life Cycle Program includes both new facilities and improvements to the existing system. Operation and maintenance of the system are also addressed. Projects include new freeway corridors, additional lanes on existing facilities, new interchanges at arterial cross streets, high occupancy vehicle ramps at system interchanges, noise mitigation and maintenance and operations programs.

The concept of a Life Cycle Program refers to a programming approach that forecasts and allocates funds through the full life of a major funding source. The Life Cycle Program covers the project program through fiscal year 2026, and provides the necessary management tools to ensure both ADOT and MAG maintain realistic planning and construction schedules, predicated upon funding, and provide periodic reports to the public and other governmental agencies.

Arizona House Bill 2292, which was passed in the spring 2003 session of the Arizona Legislature, established the Transportation Policy Committee which was tasked with developing a Regional Transportation Plan for Maricopa County, and established the process for an election to extend the then current half cent County Transportation Excise Tax. The Regional Transportation Plan Freeway Program includes both new freeway corridors to serve growth in the region and improvements to the existing system to reduce current and future congestion. The Regional Transportation Plan also addresses quality of life issues such as noise mitigation, maintenance, litter control and landscaping. The Regional Transportation Plan has three major components: Freeways/Highways, Transit and Arterial Roads.

On November 2, 2004, voters in Maricopa County approved Proposition 400 to extend the existing half cent sales tax for transportation for an additional twenty years from January 2006 to December 2025. The previous tax expired December 31, 2005.

The FY 2007-2011 RTP Freeway Program incorporated two locally accelerated projects:

- I-10, Sarival Avenue Agua Fria Freeway (SR101L): Advanced from FY 2011-2014 to FY 2008-2009.
- I-17, Dove Valley Road TI: Advanced from FY 2021-2022 to FY 2007-2008.

Arizona House Bill 2865, approved in the spring session of the Arizona Legislature (2006), established the Statewide Transportation Acceleration Needs (STAN) account. The STAN account provided \$307 million to be used for the acceleration of the design, R/W acquisition and construction or reconstruction of freeways, state highways, bridges and interchanges on the statewide highway system.

Per HB 2865.G, 60 percent (\$184.2 million) would be distributed to projects in Maricopa County. Pima County would receive 16% (\$49.1 million) and the remaining 24% (\$73.7 million) funds were distributed to the thirteen other counties. It is anticipated that 5% growth in interest income will increase the MAG allocation to \$193.4 million.

The legislation required that funds spent in Maricopa County be allocated to projects in the MAG Regional Transportation Plan. Six projects approved by the MAG Regional Council and State Transportation Board included:

- I-10 (Papago Freeway), Verrado Way Sarival Avenue
- I-17 (Black Canyon Freeway), SR74 Anthem Way
- Pima Freeway (SR101L), Tatum Boulevard Princess Drive
- Price Freeway (SR101L), Baseline Road Santan Freeway (SR202L)
- Bob Stump Memorial Parkway (SR303L), Bell Road, Cactus Road and Waddell Road intersections
- Williams Gateway Freeway, Santan Freeway (SR202L) Meridian Road for R/W Protection

On September 2007, the State Transportation Board approved deletion of SR153 from the RTP Freeway Program and shifted available funding for improvements to the SR143/SR202L TI. The proposed change is a major amendment and required that the statutory consultation process be followed per A.R.S. 28-6353.

Arizona House Bill 2781, Section 108, approved in the 2007 spring session of the Arizona Legislature, extended the maximum transportation bond term to thirty years from twenty years. This Bill will provide approximately \$500 million for the programming of design, R/W acquisition and construction projects on the statewide highway system.

Arizona House Bill 2781, Section 108, also transferred \$62 million from the State Highway Fund to the Statewide Transportation Acceleration Needs account established by Section 28-7009, Arizona Revised Statutes.

Arizona House Bill 2620, Section 21(B), approved in the 2008 spring session of the Arizona Legislature, transferred \$42 million from the STAN account to the Department of Public Safety for highway patrol costs in fiscal year 2007-2008.

Arizona House Bill 2094, Section 28-7009(F)(2), approved in the 2008 spring session of the Arizona Legislature, allowed the STAN account to be used to pay for interest costs resulting from bonds, loans, notes or other obligations issued or incurred or advances made by or on behalf of a city, town or county.

The FY 2009-2013 RTP Freeway Program incorporated local acceleration of the Beardsley Road connector and Union Hills Drive TI project: Advanced from FY 2011-2012 to FY 2009.

A key management tool used for the Life Cycle Program is the development of certified revenues and costs. Certification involves the preparation of reliable cost estimates for the entire MAG system, as well as a forecast of revenues available to fund the system. The costs and revenues are reviewed and certified by ADOT every six months.

This certification of information pertaining to the Regional Transportation Plan Freeway Program constitutes the official position of ADOT and is used for all planning and programming purposes. It enhances the information flow to MAG and the public on a periodic basis and allows ADOT to make program adjustments as necessary.

**Executive Summary** 



#### **EXECUTIVE SUMMARY**

The Director of the Arizona Department of Transportation has certified the MAG Area Life Cycle Program of the Regional Transportation Plan Freeway Program (RTPFP) effective January 31, 2009. This certification of the MAG Area Life Cycle Program incorporates the Draft Tentative FY 2010 – 2014 Regional Transportation Plan Freeway Program.

Revenue forecasts are based on a cutoff date of November 30, 2008.

#### **Major Milestones since Last Certification**

- The Maricopa Freeway (I-10) auxiliary lane from Southern Avenue to SR143 was opened to traffic in August 2008.
- The Black Canyon Freeway (I-17) at Jomax Road traffic interchange was opened to traffic in September 2008.
- The Black Canyon Freeway (I-17) at SR74 traffic interchange was opened to traffic in October 2008.
- The Pima Freeway (SR101L) at 64<sup>th</sup> Street TI construction project was substantially completed in October 2008, but not open to traffic due to other pending local street improvements.
- The Pima Freeway (SR101L) HOV lane from Via De Ventura to SR202L was opened to traffic in November 2008.
- The Piestewa Freeway (SR51) HOV lane from Shea Boulevard to the Pima Freeway (SR101L) was opened to traffic in January 2009.
- SR 85 from MP 130 to MP 137 construction project was advertised in June 2008 and awarded in September 2008.
- The Agua Fria Freeway (SR101L) at Thunderbird Road TI construction project was advertised in June 2008 and awarded in September 2008.
- The Black Canyon Freeway (I-17) at Dove Valley Road TI construction project was advertised in July 2008 and awarded in September 2008.
- The Superstition Freeway (US60) from I-10 to SR101L widening construction project was awarded in September 2008.
- The Pima Freeway (SR101L) from I-17 to SR51 Freeway Management System (FMS) construction project was advertised in September 2008 and awarded in November 2008.
- SR303L from Happy Valley Parkway to Lake Pleasant Parkway construction project was advertised in September 2008 and awarded in November 2008.
- The Red Mountain Freeway (SR202L) from I-10/SR51 to SR101L Design-Build project was awarded in November 2008.
- The Red Mountain Freeway (SR202L) from SR101L to Gilbert Road HOV construction project was advertised in November 2008.

• SR303L at Cactus Road, Waddell Road and Bell Road TI and crossroad improvement project was awarded in January 2009.

### **Program Changes**

The following changes to the Adopted FY 2009-2013 Regional Transportation Plan Freeway Program have been included in the new program.

- Updated design, R/W and construction costs based on latest estimates.
- Adjusted design schedule to align with study schedule for various projects.
- Deferred construction schedule to align with design schedule for various projects.
- Established new R/W projects on I-10 at Perryville Road and SR303L between SR801 and I-10.
- Established new traffic interchange improvement project on I-10 at Avondale Boulevard.
- Repackaged I-10 corridor based upon implementation plan identified in DCR.
- Repackaged South Mountain corridor based upon implementation plan identified in DCR.
- Repackaged SR303L corridor based upon implementation plan identified in DCR.
- Deleted noise mitigation projects and transferred funding to establish "MAG Proposition 400 noise walls" project.

#### **Estimated Revenues and Program Costs**

Net funds available through year 2025 for the RTP Freeway Program show a decrease of \$344 million from the previous Certification. The total revenue available for the 20 year program is estimated to be \$11.3 billion. Details are presented in the "Revenue Projections" section, page 10.

Obligations for the RTP Freeway Program to date total \$2.1 billion. The remaining cost to complete the RTP Freeway Program is estimated to be \$13.9 billion. Details are presented in the "Construction Costs" section, page 15. The total estimated program cost is \$16.0 billion, which is \$4.7 billion more than the total estimated revenue.

Estimated costs and revenues are thus not currently in balance. This is due to higher than originally anticipated costs to purchase the needed right-or-way and construct the RTPFP as presently proposed, plus shrinking revenue due to the economic slowdown of the past six months. ADOT and MAG are reviewing this situation and working together to evaluate and modify corridors and individual elements of the remaining RTPFP Life Cycle Program so that estimated costs and anticipated revenue will be back in balance, a process that will likely take 6-12 months to complete.

#### **Design Concepts and Environmental Studies**

- A Design Concept Report (DCR)/Environmental Assessment (EA) is underway for the I-10 corridor between SR101L and I-17. The study includes adding general purpose lanes.
- A DCR/EA is underway for the I-10 corridor between SR202L and I-8. The study includes freeway widening concepts.
- A DCR/Environmental Impact Statement (EIS) is underway for the I-10 corridor between SR51 and Baseline Road. The study includes freeway widening for local and express lanes.
- A DCR/EA is underway at the I-10 corridor at the Perryville Road TI. The study includes adding a new TI.
- A DCR (separated documents for Phoenix, Glendale and Peoria city limits) and related CEs were completed for Phase 1 improvements to Grand Avenue (US60) between SR101L and McDowell Road.
- A Feasibility Study/Environmental Overview is underway for the Grand Avenue (US60) between SR303L and SR101L. The study includes various roadway improvements. Recommendations have been forwarded to MAG for concurrence.
- A DCR/EA is underway at the SR85/I-8 TI. The study includes a divided roadway concept and a new interchange configuration.
- A DCR/CE is underway for the Pima Freeway (SR101L) between Princess Drive and SR202L. The study includes adding general purpose lanes.
- A DCR/EIS is underway for the South Mountain Freeway Corridor (SR202L) between I-10 East and I-10 West. The study includes the construction of a new freeway.
- A DCR/EA is underway for the Bob Stump Memorial Parkway (SR303L) between the I-10 Reliever (SR801) and I-10. The study includes the construction of a new freeway.
- A DCR/EA is underway for the Bob Stump Memorial Parkway (SR303L) between I-10 and Grand Avenue (US60). The study includes the construction of a new freeway.
- A DCR/CE is underway for the Bob Stump Memorial Parkway (SR303L) between Grand Avenue and Happy Valley Road. The study includes upgrading of a divided highway to freeway.
- A DCR/EA is underway for the Bob Stump Memorial Parkway (SR303L) between Riggs Road and SR801. The study includes the construction of a new freeway.
- A DCR/EA is underway for the I-10 Reliever (SR801) between SR85 and the SR303L. The study includes the construction of a new freeway.
- A DCR/EA is underway for the I-10 Reliever (SR801) between SR303L and the South Mountain Freeway (SR202L). The study includes the construction of a new freeway.
- A DCR/EA is underway for the Williams Gateway Freeway (SR802) between SR202L and Meridian Road. The study includes the construction of a new freeway.

#### **Program Trends**

Right of way and construction costs have risen at significantly higher than anticipated rates over the life of the program, resulting in higher than anticipated costs for individual projects in the Regional Transportation Plan Freeway Program (RTPFP).

Additionally, the current economic slowdown has resulted in substantially lower than projected revenue collections for the Regional Area Road Fund (RARF) and Highway User Revenue Fund (HURF) which are used to fund the Regional Transportation Plan (RTP) Freeway Program.

While there is some indication that prices for construction have been moderating or even falling slightly in recent months, anticipated costs for the remaining program are still significantly higher than anticipated revenue. The Department and MAG are cooperatively evaluating the cumulative impacts of these economic factors to determine their impact upon the cost, scheduling and delivery of the RTPFP. A Cost Estimate Assessment is underway to analyze the current status of the RTP Freeway Program including the following items:

- Evaluation of the growth in construction and right-of-way costs between 2003 and 2009, and future trends for these project costs.
- Evaluation of project costs to determine how these costs have increased since the inception of the RTP Freeway Program.
- Determination of the portion of additional costs attributable to recent escalation of costs for construction labor, materials and right-of-way acquisition.
- Evaluation of freeway projects to determine if cost increases occurred due to unforeseen conditions (scope changes) resulting from updated design concept reports and expanded environmental studies.
- Updating RTP Freeway Program costs for each project based upon refined project requirements and updated construction and right-of-way costs.

The results of this evaluation will provide ADOT and MAG the financial methodology to work together to evaluate potential adjustments to the RTP Freeway Program to ensure implementation of the program as scheduled. These adjustments could include delaying projects, reducing the scope, or looking at staging or phasing options.

ADOT will monitor and review these trends closely and will continue assessing the potential financial impacts to the Regional Transportation Plan Freeway Program.

## Revenue Projections





## **Arizona Department of Transportation**

## **Transportation Services Group**

206 South Seventeenth Avenue Phoenix, Arizona 85007-3213

John A. Bogert Chief of Staff

#### LETTER OF CERTIFICATION

The Financial Management Services Office of the Arizona Department of Transportation (ADOT) has developed the following information describing the estimated funds available for construction of the Regional Transportation Plan Freeway Program from Fiscal Year 2006 through Fiscal Year 2026. This information updates certain information previously certified on July 31, 2008.

This information is intended primarily for internal planning purposes and requires reliance upon a variety of data and information sources. The revenue forecasts rely upon assumptions regarding future economic conditions and on forecasts of certain independent economic variables. These assumptions may or may not prove to be accurate. If the assumptions do not prove accurate, differences between forecast and actual results may occur.

The results contained herein represent the September 2008 official forecast of Maricopa County transportation excise tax revenues plus the MAG share of ADOT funds and other available monies for the period described above and are so certified. The official forecast was developed during the August 2008 Risk Analysis session and thus does not reflect the financial and economic uncertainty of recent months. Actual recent revenues are less than anticipated by this forecast, but the long term implications are not yet known and are not reflected in this certification. However, the Department will continue its practice of reviewing and updating the forecasts as needed on a semi-annual basis.

John R. Fink

Assistant Director of Finance and Accounting

January 30, 2009

Date

### FINANCIAL ASSUMPTIONS

Following are the assumptions made in estimating revenues available for the Regional Transportation Plan Freeway Program.

<u>Bond Proceeds and Debt Service</u>: The issuance of bonds secured by RARF, HURF and federal aid revenues are assumed. Interest on the bond issues is assumed to be 5.0 % maximum. Bond maturities are assumed for up to 30 years. Bonds are amortized on a level debt service basis, and assume no refinancing or restructuring.

Transportation Excise Tax: The official forecast was developed during the August 2008 Risk Analysis session and reflects an assessment of economic conditions at that time. Those assumptions could not foresee the financial and economic uncertainty of recent months and thus do not accurately reflect current conditions and may or may not prove accurate over the longer term. Actual revenues will thus differ from forecast revenues. Authority for and collection of the Proposition 300 half cent transportation excise (sales) tax ended on December 31, 2005. The half cent sales tax extension approved through Proposition 400 went into effect on January 1, 2006. Per ARS 42-6105.E, 56.2 percent of all sales tax collections will be distributed to freeways and state highways; 10.5 percent will be distributed to arterial street improvements; and 33.3 percent will be distributed to the public transportation fund.

<u>ADOT Discretionary Funds</u>, 37%: A 37 percent share of ADOT Discretionary Funds is programmed for the MAG Region.

<u>Highway User Revenue Fund (HURF), 15%:</u> The MAG area receives annual funding in the form of ADOT 15 percent funds, which are allocated from the Highway User Revenue Fund. These funds are spent for improvements on controlled access routes on the State Highway System.

<u>Federal Aid:</u> Federal Aid includes STP and CMAQ funds. The Federal Aid forecast assumes an annual average of \$34.1 million (until FY 2015) of MAG sub-allocated federal funds will be dedicated to the RTP Freeway Program.

Statewide Transportation Acceleration Needs (STAN): Per statute, 60 percent of the STAN is distributed to projects in the Maricopa County region. Pima County receives 16% and the remaining 24% are distributed to the other thirteen counties.

<u>Interest Income</u>: Assumes a 3.0% investment rate with 95% invested. Interest income is dependent on prior month's average cash balance.

Third Party Billing: Represents local funds and State federal funds for programmed projects.

Other Income: Includes building rent, sales of excess property and other miscellaneous income.

<u>Discount Factor:</u> Base year is FY 2009. An annual inflation factor is applied to the costs based on estimated construction and right of way cash flows. See Appendix A.

Additional assumptions regarding the funding from half cent sales tax extension include the following principles:

- Firewalls are established so funding cannot be transferred from one category to another.
- Bond proceeds will only be used for capital costs and not for maintenance or operation expenses.
- Consistent with the "firewall" principle, bonding for each funding category will be done independently.

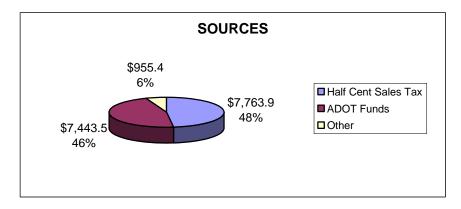
#### **Revenue Sources and Uses**

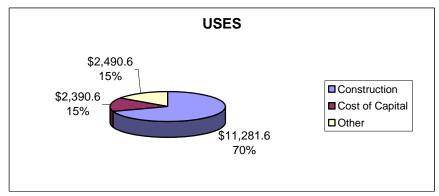
The following pie chart depicts the sources and uses of Regional Transportation Plan Freeway Program revenues. The sources consist of the transportation excise tax (half cent sales tax), ADOT Funds and various other revenues. The transportation excise tax makes up 48 percent of the total revenues, with ADOT Funds reflecting 46 percent and the remaining 6 percent consisting of various other funding sources, primarily federal aid.

Of the available funding, 70 percent is used for design, right of way and construction. Of the remainder, 15 percent is used for cost of capital and 15 percent is used for a discount factor and Regional Public Transit Authority (RPTA) transfers.

#### **Certified Financial Plan**

Fiscal Years 2006 – 2026 (dollars in millions) Total Sources/Uses: \$16,162.8





<sup>\*</sup> Construction includes design, right of way and construction

#### **Net Revenues**

The following chart reflects a breakdown of the individual revenues and costs for the Regional Transportation Plan Freeway Program.

(dollars in millions)

REVENUES	July 2008	January 2009	Change
Half Cent Sales Tax	\$8,420.8	\$7,763.9	(\$656.9)
Highway User Revenue	\$2,698.7	\$2,384.4	(\$314.3)
Federal Aid /1	\$638.2	\$682.1	\$43.9
MAG 37% Dedicated	\$5,229.7	\$4,564.9	(\$664.8)
State Discretionary /2	\$279.5	\$294.2	\$14.7
3rd Party	\$53.4	\$50.7	(\$2.7)
STAN	\$203.5	\$200.0	(\$3.5)
Interest Income /3	\$137.5	\$140.9	\$3.4
Other Income	\$79.3	\$81.7	\$2.4
Subtotal: Revenues	\$17,740.6	\$16,162.8	(\$1,577.8)

EXPENDITURES	July 2008	January 2009	Change
Cost of Capital /4	(\$2,379.2)	(\$2,390.6)	(\$11.4)
Discount Factor /5	(\$3,486.1)	(\$2,236.7)	\$1,249.4
RPTA Transfer	(\$221.6)	(\$221.5)	\$0.1
Other Costs	(\$27.9)	(\$32.4)	(\$4.5)
Subtotal: Costs	(\$6,114.8)	(\$4,881.2)	\$1,233.6
Net Funds Available	\$11,625.8	\$11,281.6	(\$344.2)

Notes: Details may not add due to rounding.

- /1 Includes STP and CMAQ.
- /2 Includes Dedicated Highway, Discretionary transfer to Grand Ave, Bethany Home Rd, private funds (I-10, 395<sup>th</sup> Ave) and Wickenburg Bypass.
- /3 Interest income is on a cash basis and assumes a 3% rate with 95% invested. Interest income is dependent on fund balances.
- /4 Includes estimated RARF, HURF, GAN interest expense and debt service fund interest earned.
- /5 Discount Factor represents conversion of construction program from inflated to current dollars.

## **Construction Costs**





## **Arizona Department of Transportation**

## **Intermodal Transportation Division**

206 South Seventeenth Avenue Phoenix, Arizona 85007-3213

Floyd Roehrich Jr. State Engineer

#### LETTER OF CERTIFICATION

The Intermodal Transportation Division of the Arizona Department of Transportation (ADOT) has completed a six month review and update of costs associated with construction of the Regional Transportation Plan (RTP) Freeway Program. Construction and design costs have been updated by our Valley Project Management Group; AECOM, HDR and PB, our three management consultants; and the consultants currently preparing final construction plans. Right of way costs have been updated by the ADOT Right of Way Group reflecting current appraisals and changes in right of way requirements. This information replaces data previously certified on July 31, 2008.

The construction and right of way cost data in this document provides an accurate accounting of costs incurred and includes a realistic estimate of future costs based upon current construction costs and real estate values. Estimated future costs are subject to changes in the economy and are affected by variables in national, state and localized market values and trends.

The results of our review provide an accurate basis upon which to schedule and fund the balance of the freeway construction program for Fiscal Years 2010-2014. However, the Department will continue to monitor all trends.

Floyd Roehrich Jr. State Engineer January 30, 2009 Date

## **Freeway Construction Costs and Changes**

The design and construction cost estimates for the Regional Transportation Plan Freeway Program (RTPFP) projects are thoroughly reviewed and updated by the three management consultants, AECOM, HDR and PB for the RTP Freeway Program. The management consultants continually review and evaluate design and construction cost estimates. They also provide preliminary engineering services by developing scoping, Stage I (15%) and Stage II (30%) project documents for the RTPFP. This effort helps define design and right of way requirements allowing ADOT to establish better cost estimates for design, right of way, utility relocations and construction. They further monitor the design consultants' cost estimates through the remaining design phases including the final estimates. The management consultants also evaluate contractor bids for RTPFP construction projects to constantly monitor construction unit cost trends, such as the cost of concrete, asphalt, structures, drainage and other items used to establish project cost estimates. These recent bids are then used to update projects in the scoping and design phases.

A revenue forecast was developed during the August 2008 Risk Analysis Process. Panel members from various segments of the real estate and economic community were invited to discuss future risks and trends in revenues. The risk analysis process consultant updated construction cost forecast models and utilized the panel input to calculate discount factors. The consultant, ADOT Financial Management services, MAG and Regional Freeway System office reviewed the discount factors and made adjustments to fit current cost trends. The information collected was used in the Risk Analysis Process to ensure that ADOT has sufficient resources to complete the RTPFP Life Cycle Program by projecting the rate of construction cost growth for the Life Cycle period (See Appendix A for Discount Factors).

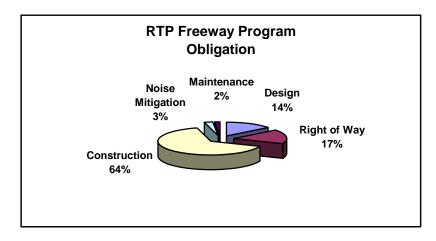
## **Obligations**

Obligations by phase and corridor are listed in the table below. These figures are through December 31, 2008. Regional Transportation Plan Freeway Program (RTPFP) obligations since the last certification increased \$546 million, from \$1,507 million to \$2,053 million.

### Regional Transportation Plan Freeway Program Obligations Through December 31, 2008

(dollars in millions)

Corridor	Design		Construction	Noise Mitigation	Maintenance	Total
I-10, Papago & Maricopa	\$24.9	\$13.2	\$117.5	\$0.0	\$0.0	\$155.6
I-10 Reliever (SR801)	\$0.0	\$15.0	\$0.0	\$0.0	\$0.0	\$15.0
I-17, Black Canyon	\$12.8	\$92.3	\$290.0	\$0.0	\$0.0	\$395.2
SR51, Piestewa	\$3.5	\$0.0	\$47.6	\$0.0	\$0.0	\$51.1
US60, Grand Ave	\$8.2	\$1.0	\$6.1	\$0.0	\$0.0	\$15.3
US60, Superstition	\$2.3	\$0.0	\$123.7	\$0.0	\$0.0	\$126.0
SR74	\$0.0	\$1.0	\$0.0	\$0.0	\$0.0	\$1.0
SR85	\$37.0	\$19.9	\$72.9	\$0.0	\$0.0	\$129.9
SR87, Duthie-Martin	\$2.5	\$0.4	\$21.5	\$0.0	\$0.0	\$24.4
SR88, Apache Trail	\$0.2	\$0.0	\$0.2	\$0.0	\$0.0	\$0.4
US93	\$0.0	\$10.3	\$32.3	\$0.0	\$0.0	\$42.6
101L, Agua Fria	\$1.7	\$0.0	\$29.2	\$0.0	\$0.0	\$30.9
101L, Pima	\$8.6	\$4.0	\$138.2	\$0.0	\$0.0	\$150.8
101L, Price	\$5.0	\$0.0	\$55.6	\$0.0	\$0.0	\$60.6
SR143, Hohokam	\$3.6	\$0.0	\$0.0	\$0.0	\$0.0	\$3.6
SR153, Sky Harbor	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
202L, Red Mountain	\$4.3	\$0.0	\$260.5	\$0.0	\$0.0	\$264.8
202L, Santan	\$0.0	\$0.0	\$0.5	\$0.0	\$0.0	\$0.5
202L, South Mountain	\$8.3	\$32.2	\$0.0	\$0.0	\$0.0	\$40.5
SR303L, Bob Stump Memorial Parkway	\$59.9	\$106.9	\$120.1	\$0.0	\$0.0	\$287.0
Williams Gateway	\$0.0	\$24.3	\$0.0	\$0.0	\$0.0	\$24.3
Systemwide	\$112.0	\$23.8	\$9.9	\$51.6	\$36.3	\$233.7
TOTAL	\$294.9	\$344.4	\$1,325.9	\$51.6	\$36.3	\$2,053.1



## **Remaining System Costs**

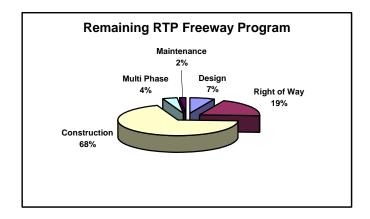
There remain \$13.9 billion of costs associated with the Regional Transportation Plan Freeway Program (RTPFP), an increase of \$4.85 billion from the July 2008 Certification.

## **Regional Transportation Plan Freeway Program**

(dollars in millions)

Corridor	Design	Right of Way	Construction	Multi Phase*	Noise Mitigation	Maintenance	Total
I-10, Papago & Maricopa	\$64.3	\$229.0	\$1,114.7	\$5.5	\$0.0	\$0.0	\$1,413.5
I-10 Reliever (SR801)	\$93.5	\$458.0	\$1,297.0	\$0.0	\$0.0	\$0.0	\$1,848.5
I-17, Black Canyon	\$23.9	\$0.0	\$923.2	\$370.0	\$0.0	\$0.0	\$1,317.1
SR51	\$5.6	\$0.0	\$76.3	\$0.0	\$0.0	\$0.0	\$81.9
US60, Grand Ave	\$11.0	\$27.0	\$232.7	\$0.0	\$0.0	\$0.0	\$270.7
US60, Superstition	\$3.8	\$0.0	\$44.0	\$0.0	\$0.0	\$0.0	\$47.8
SR74	\$0.0	\$47.0	\$6.1	\$0.0	\$0.0	\$0.0	\$53.1
SR85	\$7.6	\$12.0	\$138.6	\$0.0	\$0.0	\$0.0	\$158.2
SR87, Duthie-Martin	\$0.0	\$0.0	\$25.2	\$0.0	\$0.0	\$0.0	\$25.2
SR88, Apache Trail	\$0.0	\$0.0	\$1.5	\$0.0	\$0.0	\$0.0	\$1.5
US93	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
101L, Agua Fria	\$38.7	\$0.0	\$572.0	\$0.0	\$0.0	\$0.0	\$610.7
101L, Pima	\$20.5	\$0.0	\$352.6	\$2.5	\$0.0	\$0.0	\$375.6
101L, Price	\$5.0	\$0.0	\$50.1	\$0.9	\$0.0	\$0.0	\$56.0
143, Hohokam	\$0.0	\$0.0	\$35.1	\$0.0	\$0.0	\$0.0	\$35.1
SR153, Sky Harbor	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
202L, Red Mountain	\$25.1	\$0.0	\$362.7	\$0.0	\$0.0	\$0.0	\$387.8
202L, Santan	\$30.3	\$0.0	\$407.0	\$0.0	\$0.0	\$0.0	\$437.3
202L, South Mountain	\$98.4	\$926.5	\$1,409.0	\$0.0	\$0.0	\$0.0	\$2,433.9
SR303L, Bob Stump Memorial Parkway	\$78.7	\$767.1	\$1,703.9	\$0.0	\$0.0	\$0.0	\$2,549.7
Williams Gateway (SR802)	\$29.1	\$78.8	\$416.0	\$0.0	\$0.0	\$0.0	\$523.9
Systemwide	\$378.6	\$113.0	\$390.6	\$147.2	\$0.0	\$245.4	\$1,274.8
TOTAL	\$914.2	\$2,658.4	\$9,558.3	\$526.1	\$0.0	\$245.4	\$13,902.4

• Multi Phase: Includes more than one phase (For example, "Design and R/W" or "Design and Construction" etc.).



## **Roadway Design**

ADOT currently has 24 major Regional Transportation Plan Freeway Program projects under design.

Major design work continues on the following projects:

Corridor	Project Location	Length (Mile)	Design Status
I-10, Papago	Verrado Way – Sarival Ave.	6	Final
I-10, Papago	Sarival Ave. – Dysart Rd.	4	Final
I-17, Black Canyon	SR74 – Anthem Way	5	Final
US60, Grand Ave.	99 <sup>th</sup> Ave. – 83 <sup>rd</sup> Ave.	2.5	Final
US60, Grand Ave.	$SR303L - 99^{th}$ Ave.	10	Final
US60, Grand Ave.	SR101L – McDowell Rd.	13	Stage II
SR74	MP13 – MP15	2	Stage II
SR74	MP20 – MP22	2	Final
SR85	Southern Ave. – I-10	2	Final
SR85	Hazen Rd. – Broadway Rd.	4	Stage I
SR87	New Four Peaks Rd. – Dos S Ranch Rd.	5.5	Stage I
99 <sup>th</sup> Ave.	I-10 – MC85	3.5	Stage II
SR101L, Agua Fria	Beardsley Rd./Union Hills Dr.	TIs	Final
SR101L, Agua Fria	Olive Ave. TI	TI	Stage III
SR101L, Pima	Chaparral Rd. TI	TI	Stage II
SR143, Hohokam	SR143/Sky Harbor Blvd.	TI	Stage II
SR202L, Red Mountain	SR51 – SR101L	10	Design-Build
SR303L	SR303L/I-10 TI, Phase 1	TI	Stage II
SR303L	Thomas Rd. – Peoria Ave.	8	Stage II
SR303L	Cactus Rd., Waddell Rd. and Bell Rd.	TIs	Final
SR303L	Peoria Ave. – Bell Rd.	4	Stage II
SR303L	Bell Rd. – US60, Grand Avenue	3	Stage II
SR303L	Lake Pleasant Rd. – I-17	7	Final
MAG Regionwide	MAG Proposition 400 Noise Mitigation Project	Noise walls	Stage I

Stage I: 15% Plan Stage II: 30% Plan Stage III: 60% Plan Stage IV: 95% Plan Final: 100% Plan

## Right of Way

During the January 2009 Certification reporting period (June 1, 2008 through November 30, 2008), the Right of Way Group acquired 564 acres for the RTP Freeway Program. As of December 1, 2008, the Right of Way Group has acquired 1,899 acres for the RTP Freeway Program.

## **RTP Freeway Program Right of Way**

(acres)

Corridor	Certification	Acquired during this Certification Period	Total
I-10, Papago & Maricopa	11.3	7.9	19.2
I-10 Reliever (SR801)	75.6	0.0	75.6
I-17, Black Canyon	73.5	8.9	82.4
SR51, Piestewa	0.0	0.0	0.0
US60, Grand Ave.	0.0	0.0	0.0
US60, Superstition	0.0	0.0	0.0
SR74	0.0	0.0	0.0
SR85	1,022.0	8.5	1,030.5
SR87, Duthie-Martin	1.2	0.0	1.2
SR88, Apache Trail	0.0	0.0	0.0
US93	107.5	0.0	107.5
101L, Agua Fria	0.0	0.0	0.0
101L, Pima	3.1	0.0	3.1
101L, Price	0.0	0.0	0.0
SR153, Sky Harbor	0.0	0.0	0.0
202L, Red Mountain	0.0	0.0	0.0
202L, Santan	0.0	0.0	0.0
202L, South Mountain	19.2	1.9	21.1
SR303L, Bob Stump Memorial Pkwy	21.6	536.2	557.8
Williams Gateway (SR802)	0.0	0.0	0.0
Systemwide	0.0	0.0	0.0
Total	1,335.0	563.6	1,898.6

## **Historical Overview**



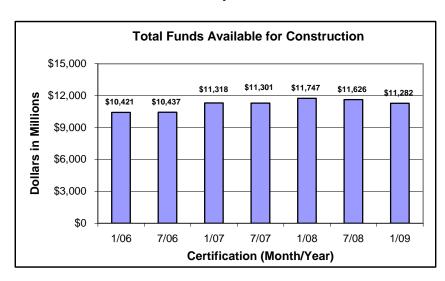
## **Historical Overview of Funding**

The Director of the Department of Transportation has been certifying the revenues available for construction of the Regional Transportation Plan (RTP) Freeway Program since January 2006. Table 1 shows the revenue estimates and associated costs beginning with the January 2006 Certification. Graph 1 shows the level of funding available for construction of the RTP Freeway Program.

Table 1
Historical RTP Freeway Program Funds Available for Construction (dollars in millions)

0	Revenues				Costs				Assallable for
Certification Date	1/2 Cent Tax	ADOT Funds	Other	Total	Capital	Discount Factor	Other	Total	Available for Construction
1/06	\$8,178.4	\$7,990.1	\$665.3	\$16,833.8	(\$2,279.1)	(\$3,908.3)	(\$225.0)	(\$6,412.4)	\$10,421.4
7/06	\$8,199.7	\$8,112.2	\$676.7	\$16,988.6	(\$2,403.0)	(\$3,906.0)	(\$242.4)	(\$6,551.4)	\$10,437.2
1/07	\$8,652.1	\$8,371.8	\$724.6	\$17,748.5	(\$2,483.2)	(\$3,702.8)	(\$244.4)	(\$6,430.4)	\$11,318.1
7/07	\$8,652.1	\$8,371.8	\$732.3	\$17,756.2	(\$2,576.7)	(\$3,635.3)	(\$243.6)	(\$6,455.6)	\$11,300.6
1/08	\$8,645.5	\$8,416.8	\$820.6	\$17,882.9	(\$2,564.4)	(\$3,326.2)	(\$245.1)	(\$6,135.7)	\$11,747.2
7/08	\$8,420.8	\$8,411.4	\$908.4	\$17,740.6	(\$2,379.2)	(\$3,486.1)	(\$249.5)	(\$6,114.8)	\$11,625.8
1/09	\$7,763.9	\$7,443.5	\$955.4	\$16,162.8	(\$2,390.6)	(\$2,236.7)	(\$253.9)	(\$4,881.2)	\$11,281.6

Graph 1



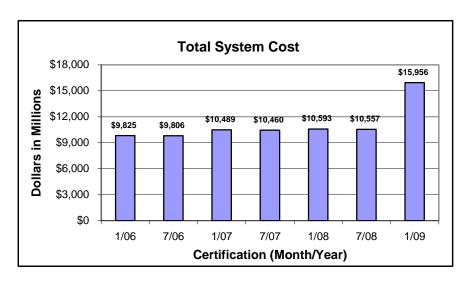
#### **Historical Overview of Costs**

The Director of the Department of Transportation has been certifying the cost to complete the Regional Transportation Plan (RTP) Freeway Program since January 2006. Table 2 shows the cost estimates for the system beginning with the January 2006 Certification. Graph 2 represents the estimated total cost of the RTP Freeway Program.

Table 2
Historical RTP Freeway Program Cost Estimates (dollars in millions)

Certification Date	Obligations	Cost to Complete	Total System Cost
1/06	\$178.0	\$9,647.1	\$9,825.1
7/06	\$234.3	\$9,571.3	\$9,805.6
1/07	\$435.2	\$10,053.4	\$10,488.6
7/07	\$779.0	\$9,681.0	\$10,460.0
1/08	\$1,171.3	\$9,421.2	\$10,592.5
7/08	\$1,506.8	\$9,050.0	\$10,556.8
1/09	\$2,053.1	\$13,902.4	\$15,955.5

Graph 2



**Appendix** 



## Appendix A

Discount factors representing the rate of construction cost growth are calculated using software developed by HDR - Hickling, Lewis and Brod Inc. Data from the August 2008 Risk Analysis Process (RAP) for construction was utilized to compute factors for design and construction. These factors represent potential cost growth which includes general inflation.

## **Cash Flow Discount Factors**

(percent)

#### For Design & Construction

#### For Right of Way

Fiscal Year	Design & Construction
2010	
2010	2.0
2011	2.0
2012	3.0
2013	3.0
2014	3.0

Fiscal Year	Right of Way
2010	2.0
2011	2.0
2012	3.0
2013	3.0
2014	3.0